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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/929,836    09/15/97    ARTERBURN    R    6971

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IM62/0630

EXAMINER

HOFFMANN, J

ART UNIT

PAPER NUMBER

1731

*13*

DATE MAILED: 06/30/99

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UNITED STATES DEPARTMENT OF COMMERCE  
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 13

Application Number: 08/929,836  
Filing Date: 15 September 1997  
Appellant(s): Russell Arterburn

**MAILED**  
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**GROUP 1100**

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Robert Touslee  
For Appellant

**EXAMINER'S ANSWER**

This is in response to appellant's brief on appeal filed 03 March 1999.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the

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pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: Issue 1) should be reduced to just whether claims 8-10 are proper under 35 USC 112 second paragraph? This is because Applicant has overcome the other problem.

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**(7) *Grouping of Claims***

The rejection of claims 2 and 4 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 8-10 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 11-15 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 21-22 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

The rejection of claims 23-24 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

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**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

3,810,741	STALEGO	5-1974
4,624,693	MARRA	11-1986
4,330,312	HILL	5-1982

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claims 8-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what is meant by "open area" in claim 8. The "total area", "hole area", and "unit area" are elsewhere mentioned. There doesn't seem to be any other area remaining which can reasonably be designated "open area". The specification doesn't define this term or otherwise shed light on this concept.

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***Claim Rejections - 35 USC § 102***

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Stalego.

Claim 2 requires a bushing. Although the claim refers to a channel, the channel is not a required feature of the bushing. Figures 4 shows the bushing and figure 6 shows the screen having a central portion that has a hole area that is significantly smaller than the hole area of two end portions. The claim is broad and does not require anything specific about what constitutes any "portion." One can arbitrarily designate the various portions so that one of said end portions is smaller in area than the other of said end portions. See attached "sheet A" for one such arbitrary division: where there is (moving left to right) a left "end portion", then a "mid or central portion" then a first right "end portion" then a second right "end portion".

***Claim Rejections - 35 USC § 103***

Claims 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over STALEGO.

These claims are the method claims which correspond to the apparatus of claim 2. They require the use of the bushing in a channel furnace. It would have been obvious to use the Stalego bushing in a conventional channel-type furnace because such is a conventional furnace as admitted by Applicant. As indicated above, the various portions are very broad and

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one can arbitrarily define the regions of the *in situ* Stalego bushing so that there are two end portions wherein one is closer to the channel than the other. See Attached Sheet B for an additional (rotated) example which meets the language.

Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marra.

Figure 1 shows the "channel position" (10). Although only one bushing is shown, it would have been obvious to use multiple bushings so as to create multiple amounts of fibers. Referring to figure 3, 37 points to the tip plate. 45 is the first screen that is attached to the side walls 33. 50 is the second screen that is on the first screen. Refer to the attached sheet C) which shows how the hole density limitations are met. Like the other claims, the term "portion" is used broadly and is open to the interpretation represented by Sheet C). The resistance to flow in the central section is about 50% higher than in the end portions; the central portion has nine holes (fig 3) whereas the end portions have a total of 6 holes. This means the central portion has about 9/6ths the resistance as the end portion. This is under the assumption each hole has an equal resistance. 50% more holes mean 50% more hole resistance. If it is not inherent that each resistance is equal, then one can arbitrarily redesignate the end portions so that one has only one hole - (that hole being the one with the least amount of resistance).

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Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill. Referring to figures 2 and 1 of Hill: there are various hole sections (54). Looking at the left most bushing of figure 1, look to the right most section (54) - it is one end portion: this is because it is near the end and because it is a portion. The left most 90% of the left most (54) is the other end portion. One end portion is 10% larger than the other). A middle-most feature (56) is the central portion.

As to the thickness limitation, see col. 8, line 48-50 which teaches 5-10 one-thousandths of an inch for the figure 8 embodiment. There is no mention of the figure 2 thicknesses. It would have been obvious to have them be the same thicknesses since they are nearly the same in other respects. It would have been obvious to have it as thick as possible (i.e. 10 one-thousandths) so as to have it last longer and be stronger. All other limitations are easily seen.

As to claims 12-15, it is noted that the claimed "hole area per unit area" is broadly claimed and can refer to either a local value for this, or the entire hole area divided by the entire area of each portion. Col. 7, lines 26-35 disclose hole characteristics. It would have been obvious to take the middle values for each of the ranges because it is a good place to start. Such small openings would have an area of 1418 square milli-inches. The large openings would have an area of about 7854 square milli-inches. There would be 160 small holes per square inch and 60 large openings in the end portions. Thus some local areas of the mid region would have  $160 \times 1418 = 0.227$  square inches of hole space per square inch of



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screen space and the end regions would have a section with  $60 \times 7854 = 0.471$  square inches hole area per square inch of screen area. This is a 52% difference.

**(11) Response to Argument**

**35 USC 112 (2)**

It is argued that the term “open area” is an alternative term for “hole area.” Applicant points to page 7, lines 6-9 in the specification for evidence to support this position. This does not support Applicant’s position. Whereas the specification uses “hole or open area” it is unclear whether it refers to two alternative concepts or two alternative terms for the same concept. The last sentence of the exact same paragraph also uses the term “or” but this refers to three different concepts - not three different terms for the same concept. Also twice in the same paragraph Applicant clearly indicates that terms are being defined - there is no such indication for “hole area” or “open area.”

Furthermore 608.01(o) states that “The use of a confusing variety of terms for the same thing should not be permitted”. Claim 8 refers to both “hole area” and “open area”; which would lead one to believe that they are two different things - they surely led Examiner to think they were two different things. Applicant now argues they are the same thing. This is a confusing variety of terms for the same thing.

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35 USC 102 (b)

It is argued that the rejection doesn't explain how the configuration of the rejection anticipates the screen with one of the end portions being smaller in area than the other end portion. This was not explained because there was no need to explain it - this is because it is clear that if there is two end portions on the right and just one end portion on the left, the left portion would have to be larger than either end portion on the right. See sheet A) which gives one example.

It seems that Appellant interprets the lines of division in the Stalego screen as being lines of division for "end portions" and "mid portion." There is no such requirement. Anyone can designate any section, sub-section, sub-sub-section or sub-sub-sub-section near an end to be an "end portion" simply because it is a "portion" and it is near an end.

It is also argued that claim 2 requires the claimed channel positions and screen orientation, with no explanation why. Examiner gives these limitation the weight that the claim requires, i.e. that the screen must be capable of being used in the mentioned channel structure. It is clear that it can.

35 USC 103

Stalego (claims 21-22)

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It is argued that using the Stalego bushing in the channel would not result in the claimed invention. By way of support for this position, Appellant further specifies that the Offices interpretation "does not produce the invention of claim 21...." However Appellant never indicates which specific limitation is not met by Stalego, or any error in the interpretation and/or application of Stalego.

Marra (claims 23-24)

It is argued that Marra has end portions with no openings. Such an interpretation has nothing to do with the interpretation given by the Office. "End portion" is a very broad term and Appellant has not limited the claims to the interpretation Appellant urges in the Appeal.

It is still further argued that Marra doesn't teach a division in the manner used by the Office in the rejection. There are no divisions in the rejection. But if there is something that appears to be a division it is merely a perceived division created by the necesasry deliniation as to demonstrates what constitutes the claimed portions. Such a division would appear in any application of prior art. Perhaps Appellant was arguing that one can't designate the various portions so that one end portion has 6 holes or one hole, because Marra doesn't teach such designation. This is unconvincing because the rejection is based on the structure described by the claims, not the language used to describe the structure. The fact that Marra doesn't describe a "portion" does not mean a portion does not exist.

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To answer Applicant's question: The rejection is based entirely on Marra 4,624,693. Therefore Appellant's arguments regarding Marra '027 are moot.

It is also argued that if the central portion has nine holes and the end portions had six holes, then the central portion would have less resistance to flow. No argument is given for this assertion. It is noted that Appellant is interpreting "resistance to flow...through the central portion" as if it were "resistance to flow *of* the central portion." If this were the case, then one could again arbitrarily divide the screen into portions to meet this limitation. However, this is not what the claim requires. In fluid dynamics there are two types of resistance: the first is of the type where one object resists flow of a fluid, such as with a boat or screen. The second type is the resistance of flow through a conduit, for example a pipe internally coated with Teflon would have a different "resistance of flow through the pipe" than a pipe of equal diameter having rust and scale on the inside. The claim refers to glass which is flowing *through* the screen, not the glass that is sitting above the screen. The screen sitting above the screen is slowed by the first type of resistance, the glass that is flowing through the holes is slowed by the second type of resistance. If one would examine the effect of these resistances, the total amount of force due to resistance through 6 holes is less than the total amount of force due to resistance through 9 holes (3/9ths less). Since the gradient is the same, the relative total resistance would be directly proportional to the number of holes in each portion.

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Hill (Claims 11-15)

It is argued that the orifice plate is not for laying on top of another screen. The intended use of structure is not important, only the structure itself is. The fact that it is designed to be an orifice plate does not change the structure so that it no longer meets the claim limitations.

It is argued that Examiner's conclusion that the structure can be cut off and laid over another screen is erroneous, unreasonable and has no basis. Appellant has given little reason why it is erroneous or unreasonable. Clearly it can be cut off and laid on another screen. It is assumed that Applicant objects to the notion that this is sufficient basis for calling it a "lay in screen." There is no definition for "lay in screen" in the claims, specification or prior art that would exclude one from calling the Hill structure a "lay in screen". Examiner cannot imagine that a window screen should could not be called a "window screen" just because it is physically connected to structure other than a window opening. Nerwing v. Erlichman, 168 USPQ 177, 179 (PTO Bd. Of Int. 1969) held that "The mere fact that a given structure is integral does not preclude its consisting of various elements." Likewise it is proper to consider the screen to be a screen even though it is an integral part of other structure.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

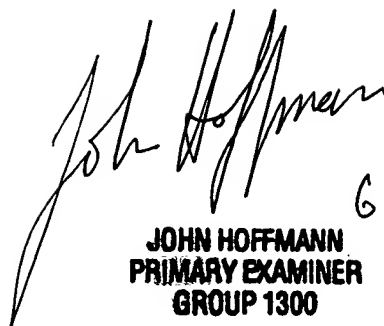
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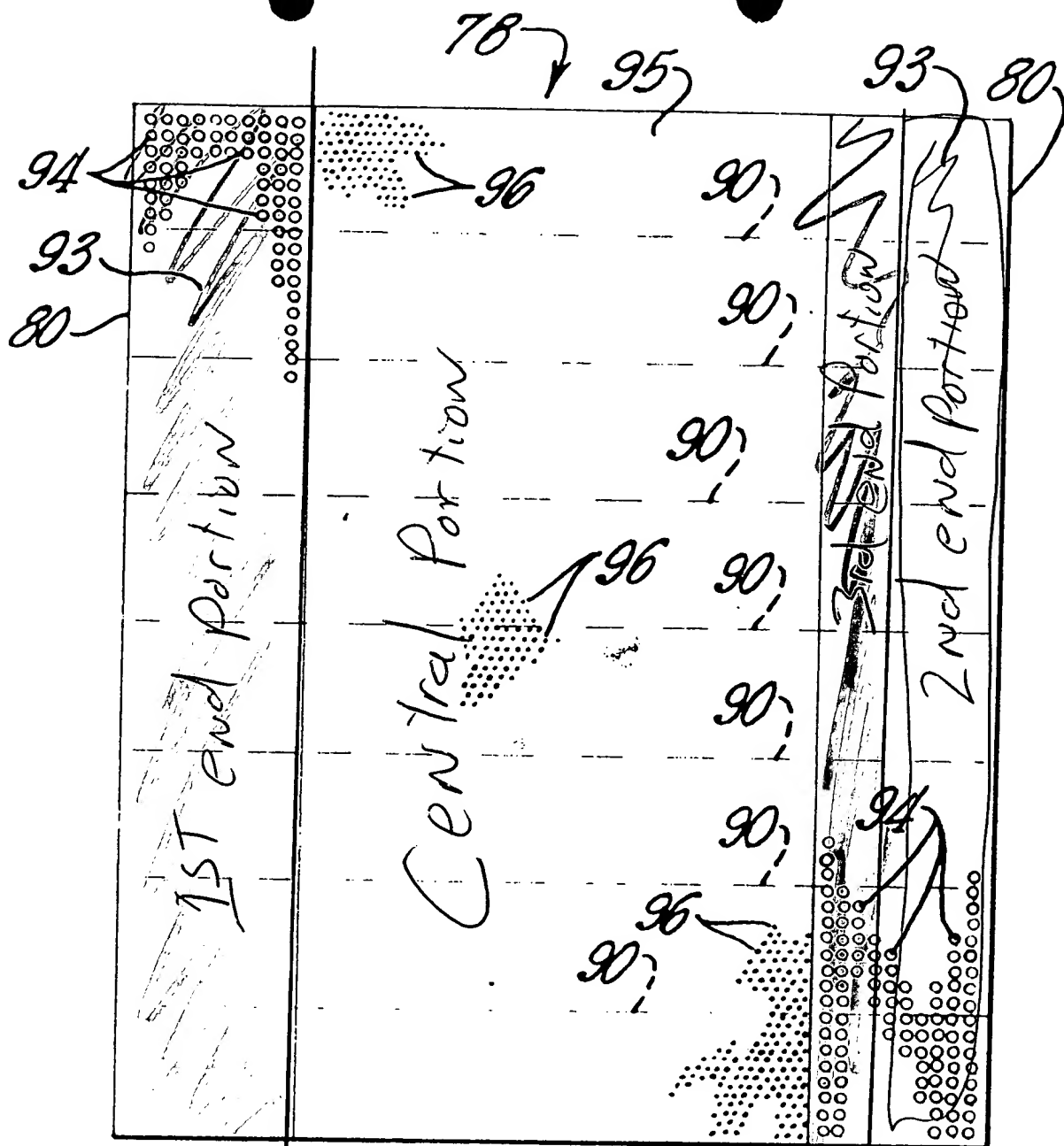


Fig. 6

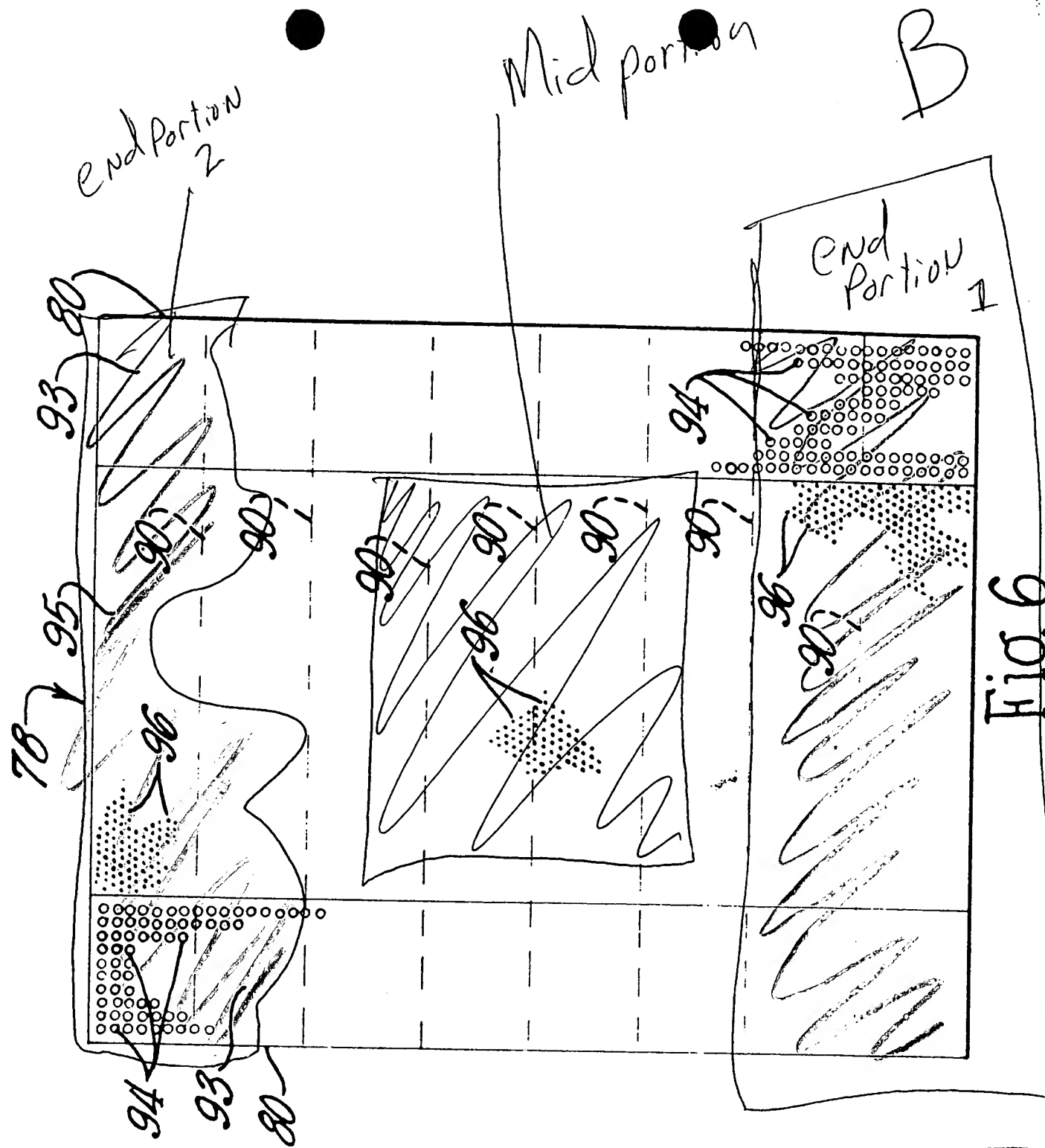
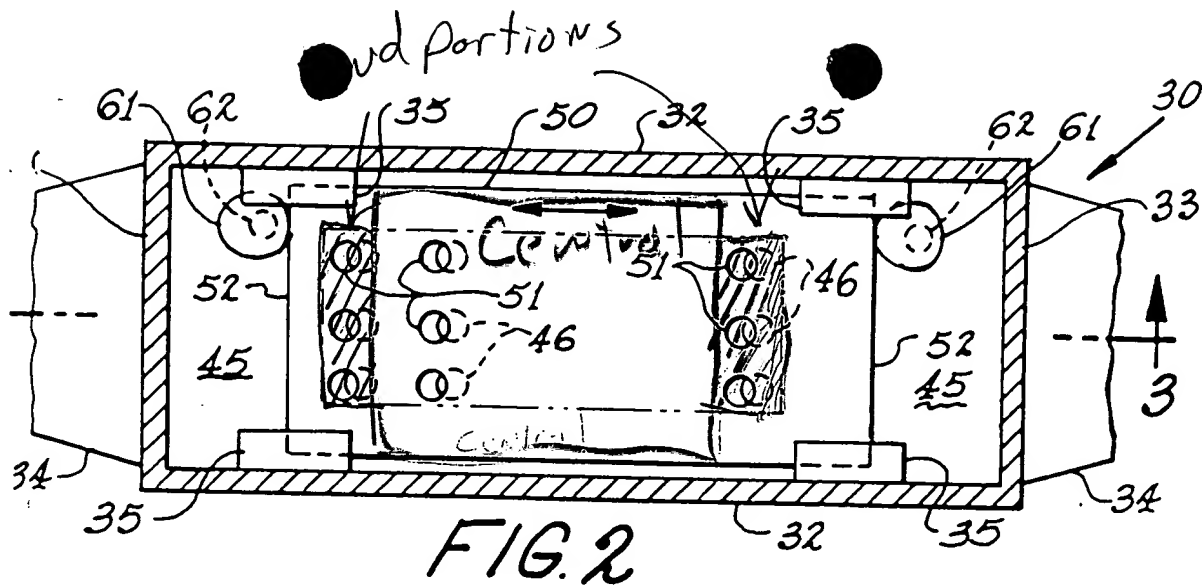


Fig. 6





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